CLAIMS

1. A method of communication between a first node and a second node, a plurality of different channels being provided between said first and second node, said method comprising the steps of:
calculating an integrity output, said integrity output being calculated from a plurality of values, some of said values being the same for said different channels, at least one of said values being arranged to comprise information relating to the identity of said channel, each channel having a different identity; and
transmitting information relating to the integrity output from one of said nodes to the other.

2. A method as claimed in claim 1, wherein a separate input is provided for said information relating to the identity of the channel.

3. A method as claimed in claim 1, wherein said information relating to the identity of the channel is combined with at least one other input value.

4. A method as claimed in claim 3, wherein said information relating to the identity of the channel is combined with only one other input value.

5. A method as claimed in claim 3, wherein said combined input value input comprises a first part allocated to the identity of the bearer and a second part allocated to the other information provided by said value.

6. A method as claimed in any preceding claim, wherein said values input to said algorithm comprise one or more of the following values:
an integrity key; a direction value, a fresh value, a message value and a count value.

7. A method as claimed in claim 3 or 5 and 6, wherein said information relating to the identity of the bearer is combined with one or more of the following: said fresh value; said count value; said integrity key; said direction value and said message value.

8. A method as claimed in claimed in claim 7, wherein said message value is sent from one node to another without the channel identification information.

9. A method as claimed in any preceding claim, wherein the output of the integrity algorithm is sent from one node to another.

10. A method as claimed in any preceding claim, wherein communication between said first and second nodes is via a wireless connection.

11. A method as claimed in claim 10, wherein one of said first and second nodes is user equipment.

12. A method as claimed in claim 12, wherein said user equipment is a mobile station.

13. A method as claimed in any of claims 10 to 12, wherein one of said first and second nodes is a radio network controller.

14. A method as claimed in claim 10, 11, 12 or 13, wherein one of said first and second nodes is a node B.

15. A method as claimed in any preceding claim, wherein said communication channels comprise a radio bearer.

16. A method as claimed in claim 15, wherein said radio bearer is a signalling radio bearer.

17. A method as claimed in any preceding claim, wherein said input values are input to an algorithm for calculation said output.

18. A method as claimed in claim 6 or any claim appended thereto, wherein the same integrity key is used for the different channels.

19. A method for carrying out an integrity check for an system comprising a first node and a second node, a plurality of communication channels being provided between said first node and said second node, said method comprising the step of calculating an integrity output using a plurality of values, some of said values being the same for said different channels, at least one of said values being arranged to comprise information relating to the identity of said channel, each channel having a different identity.

20. A method of communication between a first node and a second node, a plurality of different channels being provided between said first and second node, said method comprising the steps of:
calculating an integrity output using a plurality of values, one of said values being an integrity key, each of said channels having a different integrity key; and
transmitting information relating to the output of said integrity algorithms from one of said nodes to the other.

21. A method of communication between a first node and a second node, a plurality of different channels being provided between said first and second node, said method comprising:
triggering an authentication procedure; and
calculating a desired number of integrity parameters by the authentication procedure.

22. A node, said node for use in a system comprising a said node and a further node, a plurality of different channels being provided between said nodes, said node comprising means for calculating an integrity output, said integrity

output being calculated from a plurality of values, some of said values being the same for said different channels, at least one of said values being arranged to comprise information relating to the identity of said channel, each channel having a different identity; and

means for transmitting information relating to the integrity output from said node to said further node.

23. A node, said node for use in a system comprising said node and a further node, a plurality of different channels being provided between said nodes, said node comprising means for calculating an integrity output, said integrity output being calculated from a plurality of values, some of said values being the same for said different channels, at least one of said values being arranged to comprise information relating to the identity of said channel, each channel having a different identity; and

means for comparing information relating to the integrity output calculated by said node with a value calculated by the further node.

24. An algorithm for calculating an integrity output for use in a system comprising a node and a further node, a plurality of different channels being provided between said nodes, said algorithm comprising means for calculating an integrity output, said integrity output being calculated from a plurality of values, some of said values being the same for said different channels, at least one of said values being arranged to comprise information relating to the identity of said channel, each channel having a different identity.